
NATIONAL AERONAUTICS
AND SPACE ADMINISTRATION
Preparing Activity: KSC

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SECTION 26 05 19.00 98

LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES 04/06

its entirety whenever mi cable is required on the project. Notes are for designer information and will not appear in the final project specification.

This KSC local specification covers mineral insulated (MI) electrical cables.

Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.

PART 1 GENERAL

1.1 REFERENCES

Not Used

1.2 SUBMITTALS

NOTE: Review Submittal Description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list to reflect only the submittals required for the project. Submittals should be kept to the minimum required for adequate quality control.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" if the submittal is sufficiently important or complex in context of the project.

For submittals requiring Government approval on Army projects, a code of up to three characters within the submittal tags may be used following the "G" designation to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for

Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy, Air Force, and NASA projects.

Choose the first bracketed item for Navy, Air Force and NASA projects, or choose the second bracketed item for Army projects.

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.] [for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.] Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Manufacturer's catalog data shall be submitted for the following items:

Mineral-Insulated (MI) Cable Sealing Compound

SD-07 Certificates

Certificates shall be submitted for the following items showing conformance with the referenced standards contained in this section.

Mineral-Insulated (MI) Cable Sealing Compound

1.3 GENERAL REQUIREMENTS

NOTE: If Section 26 00 00.00 40 GENERAL ELECTRICAL PROVISIONS is not included in the project specification, applicable requirements therefrom should be inserted and the following paragraph deleted.

Section 26 00 00.00 40 GENERAL ELECTRICAL PROVISIONS applies to work specified in this section.

All work in this section that is covered by Specification 79K06110 shall be in accordance with Specification 79K06110.

PART 2 PRODUCTS

2.1 MINERAL-INSULATED (MI) CABLE

MI cable shall consist of soft annealed, uncoated, copper conductors insulated with a highly compressed refractory mineral insulation.

2.2 SEALING COMPOUND

Sealing compound shall be in accordance with Specification 79K06110.

PART 3 EXECUTION

3.1 GENERAL

Length of cable needed for a particular run shall be measured and an allowance made for the length of conductor needed at each end to properly make the desired terminations. Cable shall be cut to the necessary length with a hacksaw. Cable cutters and other cutting tools that exert excessive pressure on the metallic sheath shall not be used. Immediately following cutting, both ends of the cable shall be sealed in accordance with Specification 79K06110 to prevent moisture penetration of the insulation. Cutting shall be done immediately preceding installation.

Cable shall be trained into place by hand wherever possible. On straight runs, it may be straightened into its final position by being tapped with a wooden mallet, block, or plank.

Sharp bends and kinks shall be avoided during preliminary handling and training.

Cable shall be supported at least every 1800 millimeter 6 feet during handling and training.

Bends shall be made by approved template or hand hickey. Minimum bending radius of the inside edge of any bend shall be five times the diameter of the cable.

A loop or an offset shall be formed in the cable within 1200 millimeter 4 feet of cable terminations in all runs exceeding 9.1 meter 30 feet. Loop or offset shall be of such a size as to provide a minimum of 300 millimeter 12 inches of excess cable to allow for retermination without replacing the cable run.

Termination shall be made in accordance with Specification 79K06110.

MI cables shall be supported as shown on the drawings. Intervals between supports shall not be more than 1800 millimeter 6 feet on both horizontal and vertical runs. MI cable installed in ducts, raceways, conduits, and cable trays shall be deemed adequately supported along horizontal runs. Cable shall be wrapped with an adhesive heat-resistant glass tape at each support point to minimize electrolysis between the cable sheath and the supports. Wrap shall be a minimum thickness of 0.36 millimeter 14 mils (two complete wraps of 0.18 millimeter 7-mil tape) and shall extend past the support device a minimum of 6.4 millimeter 1/4 inch on each side. As an alternative to the tape wrapping, MI cable with a plastic jacket may be used.

No splices shall be made in runs of MI cable unless Specifically shown on the drawings. If splices are so shown, they shall be made only in junction boxes.

3.2 TESTS

MI cables shall be tested in accordance with specification 79K06110.

-- End of Section --